SAZ Server Install Guide

Install pre-requisite software

- Generate and install host cert and keys
  - https://twiki.grid.iu.edu/twiki/bin/view/ReleaseDocumentation/GetGridCertificates
- Install pacman. From the instructions located here: http://vdt.cs.wisc.edu/releases/1.10.1/installation_quick.html
  - Create a directory for VDT

    ```
    mkdir vdt
    cd vdt
    ```
  - Get pacman

    ```
    wget http://physics.bu.edu/pacman/sample_cache/tarballs/pacman-3.26.tar.gz
    ```
  - Install pacman

    ```
    tar xzf pacman-3.26.tar.gz
    cd pacman-3.26
    . setup.sh
    cd ..
    ```

Note: If you are building SAZ, you must install gcc, gcc-g++ and openssl-devel rpm packages: (I think you need openssl-devel anyway even to run the sazclient, ST).

- `yum -y install gcc-g++ openssl-devel`

Note: At any point you can undo your work by removing the vdt directory and starting over.

<The following will be deprecated once package dependencies and scripts have been included in the saz server pacman install file>

- `pacman -get http://fermigrid.fnal.gov/files/saz:saztoplevel.pacman`
- This now has all the necessary dependencies included. Answer y to Agree to the licenses, set up daily log rotation, automatically updating certificates, and updating CRL's. Say "l" (LOCAL) for CA Certificates location. saztoplevel.pacman will always be a symlink to the current version of the pacman package which includes the latest sazserver and all its dependencies. This is current as of saz v2_0_1b.
- Source VDT setup.sh
  - . setup.sh
- Setup your CA Certificates. First, choose your CA distribution in vdt-update-certs.conf

  ```
  vi vdt/etc/vdt-update-certs.conf
  ```

- Then, run the following script
  `. vdt-questions.sh; vdt/sbin/vdt-setup-ca-certificates`

Configure server

- Edit $VDT_LOCATION/sazserver/conf/hibernate.cfg.xml
  - Set connection.url if different than localhost
  - Set connection.username if different than 'sazdbuser'
  - Set connection.password if different than '12345'
- Edit $VDT_LOCATION/sazserver/log/log4j.saz.properties
  - `log4j.appender.R.File=$VDT_LOCATION/sazserver/log/sazserver.log`
- Many locations including Fermilab change the log directory to be a symlink into the /var/log/saz directory

Prepare Database

- Enable and start mysql
  - `vdt-control --enable mysql`
  - `vdt-control --on mysql`
- Prepare saz database
  - `cd $VDT_LOCATION/sazserver/setup`
  - `sh ./createDB.sh`

Insert and enable startup rc script

- Edit $VDT_LOCATION/sazserver/bin/sazserver
  - set VDT_LOCATION to the correct path
  - change all instances of saz/server to sazserver
- `cp $VDT_LOCATION/sazserver/bin/sazserver /etc/init.d`
- `chkconfig sazserver on`

SAZ Server Upgrade Guide

- Uninstall old version of sazserver
  - `pacman -remove sazserver`
- Install new version of sazserver described above
- Note that even though you remove the previous pacman package the sazserver will stay running until you kill the process.

SAZ Client Install Guide for CE and WN Administrators

Install client software

- Install CE or WN software, as appropriate:
  - https://twiki.grid.iu.edu/twiki/bin/view/ReleaseDocumentation/ComputeElementInstall
  - https://twiki.grid.iu.edu/twiki/bin/view/ReleaseDocumentation/WorkerNodeClient

- Install sazclient
  - `pacman -get http://fermigrid1.fnal.gov/files/saz:sazclient.pacman`
  - (This now includes Globus-Base-Essentials which is the only necessary dependency for the sazclient. If you are installing on top of a gatekeeper or WN client it will already be there, otherwise it will fetch it.
  - Note that there are versions compiled for vdt-1.8.1 as well which still contain globus-based ssl but the default one is compiled for vdt-1.10.1.

Configure client

- Edit /etc/grid-security/gsi-authz.conf:
  - globus_authorization <VDT_LOCATION>/sazclient/lib/libSAZ-gt3.2_gcc32dbg globus_saz_access_control_callout
    - <VDT_LOCATION> must be the absolute path, i.e., /usr/local/bin
- Copy $VDT_LOCATION/sazclient/conf/sazc.conf to /etc/grid-security/sazc.conf and make the following edits:
  - Set SAZ_SERVER_HOST, SAZ_SERVER_PORT, and SAZ_SERVER_DN values appropriately.

Test the Client

- Stand alone test case:
  - Generate a voms-proxy grid certificate:
    - `voms-proxy-init -voms fermilab:/fermilab`
  - Run the client:
    - `sazclient /tmp/x509up_u${UID}`
      - `To monitor the server, watch the sazserver.log file:`
      - `tail -f $VDT_LOCATION/sazserver/log/sazserver.log`
- Globus Gatekeeper test case:
  - generate a voms-proxy grid certificate
  - submit job to CE:
    - `globus-job-run fermigrid1 /usr/bin/id`

- To monitor authorization progress on the gatekeeper watch the globus-gatekeeper log file:
  - `tail -f $VDT_LOCATION/globus/var/globus-gatekeeper.log`

SAZ Client Install Guide for SE Administrators

Installation
Use VDT method described above.
Configuration
Under development.
Testing
Under development.

SAZ Client Upgrade Guide

Uninstall old version of sazclient

- `pacman -remove sazclient`

Install new version of sazclient described above
